

In the Claims

1.-12. (Cancelled)

13. (Currently Amended) A process for constructing an organized digital database in a traceable form, wherein a computer-readable medium comprises computer-executable instructions for performing the process, the process comprising:

modifying a main digital database by adding, deleting, or modifying a first recording of the main digital database, comprising:

creating at least one additional digital recording, wherein the at least one additional digital recording comprises at least: (i) unique digital identifiers of concerned recordings and attributes of the main digital database, (ii) a unique digital identifier of a state of the main digital database corresponding to the modification of the main digital database, and (iii) elementary values of attributes assigned via elementary operations without proceeding to store non-modified attributes or recordings,

addition of the at least one additional digital recording in an internal historical database composed of at least one internal historical table; and

reading the main digital database, wherein reading the main database comprises:

receiving an original request associated with the unique digital identifier of a target state;

transforming the original request to construct a modified request for addressing the internal historical database, comprising criteria of the original request and the unique digital identifier of the target state; and

reconstructing the past recording or recordings corresponding to the criteria of the original request and to the target state, wherein reconstructing comprises finding elementary values contained in the ~~recordings~~ at least one additional digital recording of the internal historical database and corresponding to the criteria of the original request to reduce requirements of storage capacity and processing times;

wherein the main digital database comprises at least one table with organized development links between the unique additional digital identifiers of ~~successive~~ sequential and alternative states of the main digital database.

14. (Currently Amended) The process according to claim 13, wherein the ~~recordings at~~ least one additional digital recording of the internal historical database also ~~contain~~ contains references to other additional digital recordings of the internal historical database to specify connections of ~~dependence~~ dependency of the source-destination type constituting a stream of interferences between data versions.

15. (Currently Amended) The process according to claim 13, wherein modifying the main digital database comprises a logic operation, and addition in the internal historical database comprises:

recording the state of the main digital database corresponding to the logic operation, where there are as many additional digital recordings as parameters of the logic operation,

recording ~~the~~ a possible result of the logic operation, and

specifying connected references to regroup operations from the elementary level of modification to a level of the transaction, passing the number of semantic levels necessary for the applications.

16. (Cancelled)

17. (Currently Amended) The process according to claim 13, wherein the table or tables of the organized development links between the states of the main digital database contain(s) first recordings specifying rules of correspondence between the ~~recordings at least one additional digital~~ recording of the internal historical database and the states of the main digital database.

18. (Currently Amended) The process according to claim 17, wherein reading comprises determining the state of the main digital database by referring to the identifiers and to ~~the tables~~ a table of development links between the states of the main digital database.

19. (Currently Amended) An architecture for database management that employs the process according to claim 13, wherein an application querying the main digital database can specify the state of the desired main digital database.

20. (Currently Amended) The architecture according to claim 19, wherein the application brings about modifications in the entire state of the main digital database and gives rise, in the instance of an attempt to modify a previous state, to creation of new alternatives of digital development of the main digital database, whose data is generated by the same internal historical database.

s 21. (Currently Amended) The process according to claim 15, wherein one or more ~~dependence~~ dependency links serve as recovery criteria for said operations already carried out.

22. (Previously Presented) The process according to claim 15, further comprising integrating or merging updates carried out on various branches into the framework of a new state inheriting these branches.

23. (Currently Amended) The process according to claim 15, further comprising treating cases of the development of the structure of the data of the main digital database as particular cases of the development of the data of the main digital database.

24. (Currently Amended) The process according to claim 15, wherein the internal historical database is explored and queried by applications via a native mode of a DBMS to obtain information and to navigate along versions and ~~streams-of-dependence~~ dependency flows in accordance with the querying language in force required by the DBMS.